



# DoD's Competitive Sustainment Program

**Executed by:**

**The Defense Sustainment Consortium  
(DSC)**



# DSC Corporate Members and DoD Participants





LOCKHEED MARTIN



DIMENSIONS INTERNATIONAL, INC.



Logistics Management Institute



ALTARUM



# DSC Mission



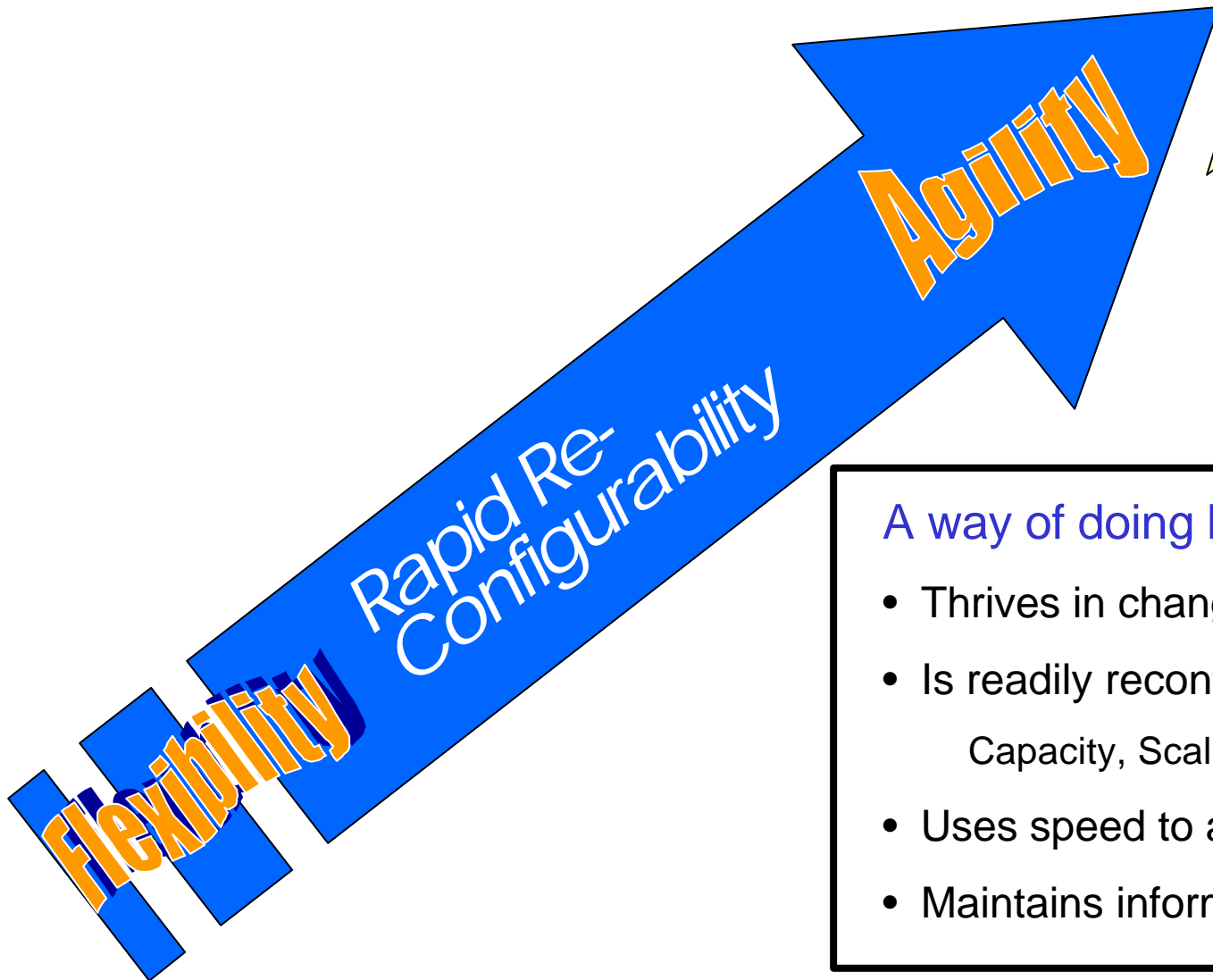
**The Defense Sustainment Consortium will substantially reduce the support cost and improve the readiness of fielded weapons systems through innovative government - industry partnerships**



# DSC Vision



JV  
2010



A way of doing business that:

- Thrives in changing contexts
- Is readily reconfigurable
  - Capacity, Scale, and Type
- Uses speed to achieve flexibility
- Maintains information richness



# Requirements to Achieve DSC Vision



- Agile government and industry partnerships to attack cost and time issues
- Involve all entities of the extended enterprise; industry through end user
- New business rules, contract models, roles and responsibilities;

**7/16/01 Executive  
Workshop**



# DSC Goals



- **Improve** the agility of the logistics support chains
- **Reduce** the overall cost of sustainment in both legacy systems and selective upgrades
- **Promote** expanded industrial base capabilities
- **Reduce** cycle time in processes affecting readiness

**OSD Goals are DSC Goals**



# DSC Operational Thrusts



1. Logistic support chain integration and partnerships
2. Timely and accurate information.
3. Streamlining maintenance processes.
4. Effective upgrade strategies





# Investment Schedule

Thrust	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07
1. <u>Logistic support chain integration and partnerships</u>	\$3M	<b>Average 30% per year</b>				
2. <u>Timely and accurate information.</u>	\$2M	<b>Average 30% per year</b>				
3. <u>Streamlining maintenance processes.</u>	\$1M	<b>Average 20% per year</b>				
4. <u>Effective upgrade strategies</u>	\$1M	<b>Average 20% per year</b>				
Total	\$7M	\$5M	\$3.5M	\$4.8M	\$6M	\$8.5M



# Project Development & Execution



Projects are proposed by Industry & DoD:

- Must support the identified thrusts and sub-thrusts
- Executed by two or more members
- Have a DoD organization's participation
- Broad applicability and repeatability
- Approved by DoD Program Manager
- Must demonstrate a clear Win-Win for Government and Industry



# DSC Projects



- **FY 01 Projects**
  - Strategic Investment Plan
  - E2E Services Pilot Project
    - DSCR, DSCC
  - Supply Chain Partnerships Study
    - OSD
  - ePortal For Obsolete Electronics Components
    - WR-ALC, DSCC
  - Real Time Visibility Contract Repaired Items
    - WR-ALC, CAV-II PM
- **FY 02 Candidate Projects**
  - Supply Chain Portal – Air Force
  - Common Approaches for Condition Based Maintenance
  - Robust, Lean Supply Chains
  - Total Parts Support Responsibility Workshops



# DSC Thrust

## Streamlining Maintenance Processes



### Project Title: CBM Decision Support System

- **Outcome:** The ability to generate and extract accurate prognostic system from ships, feed that information into legacy systems, and improvements to maintenance planning based on that information.
- **Metrics (Preliminary):**
  - Streamlined Reliability Centered Maintenance processes
  - Maintenance reductions through improved planning
  - Reduction in SF workload
  - Increased equipment availability



# DSC Project

A Pilot Decision Support System for Improving  
Navy Ship Readiness



# Phase 0

## Description (Common Processes)

- **NGNN and UD both proposed readiness support systems that shared some key features**
  - **CBM implementation on a selected military platform**
    - **UD – Army earthmoving vehicle**
    - **NGNN – Navy shipboard system**
  - **Collection/use of field maintenance data to improve platform readiness**
- **NGNN, UD, and Altarum agreed to DSC directive to work together on an added “Phase 0” to identify and document common areas**
  - **Data collection, format, and display – NGNN lead**
  - **Defining approach/processes/decision matrix for selecting system and hardware – UD lead**
  - **Benchmarking metrics – Altarum lead**
  - **Recommendations for Phase 1 – NGNN, UD, Altarum**
- **Deliverables**
  - **Mid-Project Progress Report**
  - **Final Report with recommendations for Phase 1**



# Phase 0

## Objectives / Deliverables



- **Mid-Project Progress Report**
- **Final Report**
  - **Data Collection Requirements**
    - **Periodicity**
    - **Duration**
    - **Time**
    - **Samples**
  - **Data Format Requirements**
    - **Acquisition**
    - **Storage**
    - **Display**
  - **Data Display Requirements**
    - **Availability (on-demand vs. automatic)**
    - **HMI Format**
    - **Data Content**
    - **Data Security**
- **Phase 1 Recommendations**



# Phase 0 Schedule (NGNN)



Deliverable	Start Date	Completion Date	Lead Activity
1) Data Collection Requirements	September 1, 2002	September 30, 2003	NGNN
2) Format Requirements	October 1, 2002	October 31, 2003	NGNN
3) Display Requirements	November 1, 2002	November 15, 2003	NGNN
4) Final Report/Recommendations	November 16, 2002	November 30, 2002	





# Phase 1 Description



- **Install a decision support system aboard a Navy Ship**
  - **Detection of equipment failures**
  - **Prediction of equipment failures**
  - **Northrop Grumman Newport News and NSWCCD**
  - **Northrop Grumman Newport News - lead**
- **Demonstrate the ability to get information out of the system and into the legacy systems**
  - **Logistics**
  - **Used for maintenance planning**
  - **Northrop Grumman Newport News, Altarum, and NSWCCD**
  - **NSWCCD - lead**
- **Develop a new Business Model**
  - **Map information flow**
  - **Provide recommendations to improve process**
  - **Altarum - lead**



# Phase 1

## Objectives / Deliverables



- Legacy System Infrastructure Study
- Selected System RCM Analysis
- CBM System Development and Integration with ICAS
- Laboratory Testing
- Ship Installation and Testing
- Demonstration
- Evaluation and Process Change Recommendations- Final Report



# Phase 1 Schedule



<b>Deliverable</b>	<b>Start Date</b>	<b>Completion Date</b>	<b>Lead Activity</b>
<b>1) Legacy System Infrastructure Study</b>	<b>December 1, 2002</b>	<b>December 1, 2003</b>	<b>NSWCCD/Altarum</b>
<b>2) Selected System RCM Analysis</b>	<b>December 1, 2002</b>	<b>June 31, 2003</b>	<b>NGNN/AMSEC</b>
<b>3) CBM System Development and Integration with ICAS</b>	<b>December 1, 2002</b>	<b>June 31, 2003</b>	<b>NGNN/NSWCCD</b>
<b>4) Laboratory Testing</b>	<b>March 1, 2003</b>	<b>September 1, 2003</b>	<b>NGNN/NSWCCD</b>
<b>5) Ship Installation and Testing</b>	<b>September 1, 2003</b>	<b>June 1, 2004</b>	<b>NSWCCD/NGNN</b>
<b>6) Demonstration</b>	<b>June 1, 2004</b>	<b>November 1, 2004</b>	<b>NGNN</b>
<b>7) Evaluation and Process Change Recommendations – Final Report</b>	<b>March 1, 2004</b>	<b>March 1, 2005</b>	<b>Altarum</b>